IV. CLAIM AMENDMENTS

1. (Currently Amended) A method for transmitting data in a packet-switched radio system implementing a user equipment location service, wherein the data is transmitted using a data transmission link between user equipment or a first party of the radio system and a serving mobile location center of a radio network or a second party of the radio system, and in the method

   the data to be transmitted is placed in a message of a third-layer radio resource protocol set on top of a packet protocol stack residing in a first party of the data transmission link,

   the radio resource protocol message is transmitted to the radio network using a logical link control protocol set on the second layer of the packet protocol stack,

   a logical link control protocol relay set on the second layer of the packet protocol stack in the radio network directs the logical link protocol message to a second party of the data transmission link,

   the second-layer logical link control protocol residing in the second party of the data transmission link and set on the packet protocol stack transmits the radio resource protocol message to the radio resource protocol set on the third layer, and

the second party of the data transmission link disassembles the transmitted data from the radio resource protocol message.

2. (Original) A method as claimed in claim 1, in which the radio resource protocol is a radio resource location service protocol.

3. (Original) A method as claimed in claim 1, in which the logical link control protocol is similar to the logical link control protocol between a mobile station and a support node belonging to the core network of the radio system in a public packet radio service.

4. (Original) A method as claimed in claim 1, in which the frame of a logical link control protocol comprises its own service access point identifier for the radio resource protocol.

5. (Original) A method as claimed in claim 4, in which separate address space is used for the logical link control protocol frames which contain a radio resource protocol message.

6. (Original) A method as claimed in claim 4, in which the logical link control protocol relay examines the service access point identifier of the logical link control protocol message received from a mobile station and routes said message to the serving mobile location center if the service access point identifier is that of the radio resource protocol.

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7. (Original) A method as claimed in claim 1, in which the data to be transmitted is encrypted in the logical link control protocol.

8. (Original) A method as claimed in claim 1, in which the logical link control protocol in the serving mobile location center supports more than one simultaneous radio resource protocol entities residing in different user equipment.

9. (Original) A method as claimed in claim 1, in which the data to be transmitted relates to one of the following location service messages: request to define the location of a mobile station, message to provide the location of a mobile station, message containing data assisting in location, acknowledgement of data assisting in location, and protocol error message.

10. (Original) A packet-switched radio system implementing a user equipment location service, comprising

   a network part of the radio system, which comprises a core network and a radio network having a data transmission link to the core network,

   and a radio link from the radio network to user equipment,

   the radio network comprising a serving mobile location center for locating the user equipment,

the user equipment comprising a third-layer radio resource protocol set on a packet protocol stack and a logical link control protocol set on a second layer,

the radio network comprising a second-layer logical link control relay set on the packet protocol stack,

the serving mobile location center comprising a third-layer radio resource protocol set on the packet protocol stack and a logical link control protocol set on the second layer.

11. (Original) A radio system as claimed in claim 10, in which the radio resource protocol is a radio resource location service protocol.

12. (Original) A radio system as claimed in claim 10, in which the logical link control protocol is similar to the logical link control protocol between a mobile station and a support node belonging to the core network of the radio system in a public packet radio service.

13. (Original) A radio system as claimed in claim 10, in which the logical link control protocol comprises means for setting its own service access point identifier to a radio resource protocol message in a logical link protocol frame.

14. (Original) A radio system as claimed in claim 13, in which the logical link control protocol comprises means for using a

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separate address space for the logical link control protocol frames which contain a radio resource protocol message.

15. (Original) A radio system as claimed in claim 13, in which the logical link control protocol relay comprises means for examining the service access point identifier of the logical link control protocol message received from a mobile station and for routing said message to the serving mobile location center if the service access point identifier is that of the radio resource protocol.

16. (Original) A radio system as claimed in claim 10, in which the logical link control protocol comprises means for encrypting the data to be transmitted.

17. (Original) A radio system as claimed in claim 10, in which the logical link control protocol residing in the location center comprises means for supporting more than one simultaneous radio resource protocol entities residing in different user equipment.

18. (Original) A radio system as claimed in claim 10, in which the data to be transmitted relates to one of the following location service messages: request to define the location of a mobile station, message to provide the location of a mobile station, message containing data assisting in location, acknowledgement of data assisting in location, and protocol error message.